



P A N T E R A

CRYPTO MARKET THOUGHTS

APRIL 7, 2020



Agenda

CRYPTO MARKET THOUGHTS

Given the recent activity in both cryptocurrency and broader markets following COVID-19's outbreak, we want to provide our thoughts on what has transpired thus far, and how we are positioning ourselves moving forward.

- Macro Thoughts
- Impact on Crypto
- Specific Actions in Crypto
- Pantera Strategy
- Q&A



Macro Thoughts



Free To Choose

MILTON FRIEDMAN'S CLASSIC ECONOMIC TEXT

“Free to Choose: A Personal Statement maintains that the free market works best for all members of a society, provides examples of how the free market engenders prosperity, and maintains that it can solve problems where other approaches have failed.”

The world might be experiencing an exception to that rule. Freedom for every person, every county, every state, or even, every nation – to choose might be suboptimal. This patchwork of choices is likely to have grave consequences.



Financial Markets

QUICKEST BEAR MARKET EVER

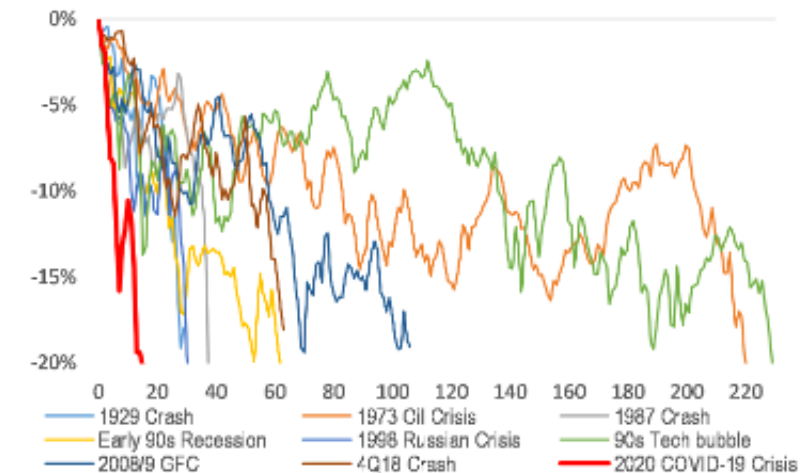
The S&P 500 recorded its quickest bear market ever.

The COVID-19 pandemic pushed the stock market down 20% in just 15 trading days, twice as fast as The Crash of 1929, which precipitated the Great Depression.

After the longest, least-volatile bull market in history, this will probably expose a lot of bad risk – hidden under 10 years of bull market.

The contrast to recent times is striking. In 2017, the maximum drawdown from peak-to-trough was just -2.8%, one of the lowest intra-year losses in history. The S&P is doing that every few minutes now.

Figure 1: The COVID-19 pandemic sparked the fastest S&P 500 bear market ever, reaching a 20% sell-off from the market peak in just 15 trading sessions



Source: J.P. Morgan Equity Derivatives Strategy, Bloomberg.



Recession

FORECASTING NEGATIVE GLOBAL GROWTH

Before 2009, the IMF had defined a global recession as annual real GDP growth rate of 3% or less. **There had not been a period of negative global growth.**

Emerging markets typically had high growth rates and recessions were contained within a country or a region.

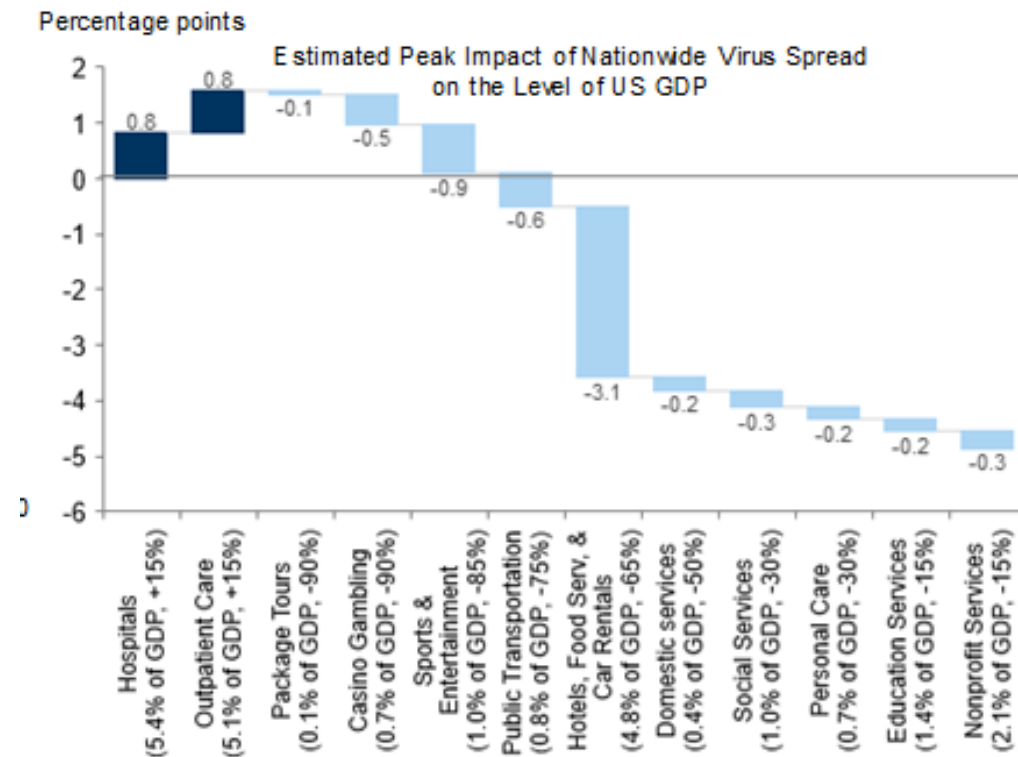
Wall Street firms are now forecasting a real recession – negative global growth.

“Global real GDP to contract by about 1% in 2020”...“24% drop in the United States that would be 2½ times as large as the previous postwar record.”

- Goldman Sachs

“Full year 2020 at -1.1%”

- JP Morgan





Not V-Shaped

There's already talk of the recession being V-shaped.

There is so much uncertainty today. **However, the one thing that seems clear is that this recession won't be V-shaped.**

In the wake of the September 11th attacks, airlines were grounded for three days. After that, we were all sad but commerce restarted. That was a one-off shock which allowed a V-shaped return. We are just starting something that will take a long time to untangle.

In the 2007-2009 recession, real GDP fell \$650 billion (4.3%) and did not recover its \$15 trillion pre-recession level for three years.

UNEMPLOYMENT

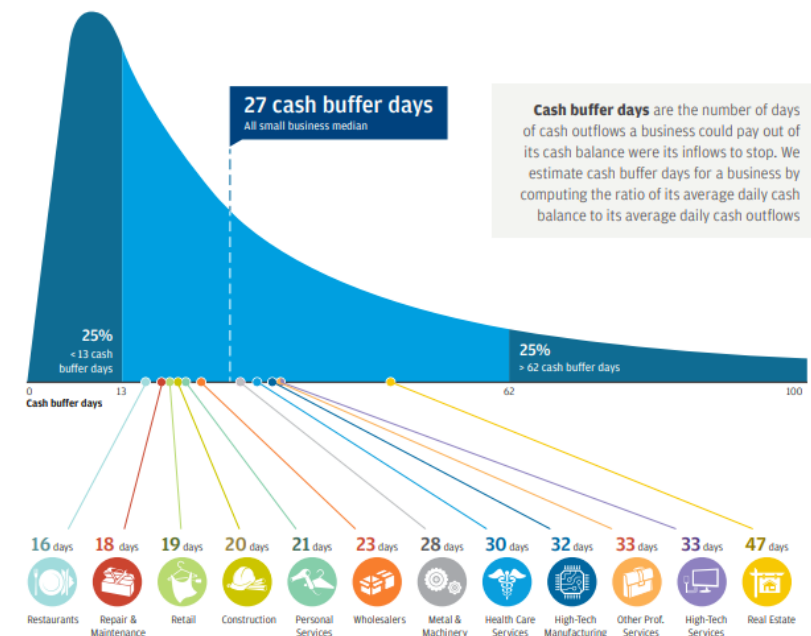
As an example of how hard it is for fiscal policy to help – and to help fast enough: the median small business has enough cash to last 27 days with zero revenue.

Finding Three

The median small business holds 27 cash buffer days in reserve.

Half of all small businesses hold a cash buffer of less than one month.

- Moreover, 25 percent of small businesses hold fewer than 13 cash buffer days in reserve.
- In contrast, 25 percent of small businesses hold over 62 cash buffer days in reserve.





INTERDEPENDENT

Supply Chains/Economies

We live in a world of just-in-time inventory management with thousands of suppliers in dozens of countries feeding a **supply chain that will be very difficult to restart – especially with the asynchronous manner that the virus is ebbing and flowing around the world.**

In 1980, Milton Friedman presented his vision of free market economics in a 10-hour PBS broadcast series called *Free to Choose*. Friedman distilled his argument into a parable about a common household object:

“Look at this lead pencil. There’s not a single person in the world who could make this pencil. Remarkable statement? Not at all. The wood from which it is made, for all I know, comes from a tree that was cut down in the state of Washington. To cut down that tree, it took a saw. To make the saw, it took steel. To make steel, it took iron ore. This black center – we call it lead but it’s really graphite, compressed graphite – I’m not sure where it comes from, but I think it comes from some mines in South America. This red top up here, this eraser, a bit of rubber, probably comes from Malaya, where the rubber tree isn’t even native! It was imported from South America by some businessmen with the help of the British government. This brass ferrule? I haven’t the slightest idea where it came from...”



THE VIRUS'S

Impact On The Economy

This will certainly end the longest global expansion on record. It is likely to have a larger global economic impact than any downturn in recent memory.

China – which led the world into this and is hopefully now leading our way out – is likely to see a 40% seasonally-adjusted annual rate decline in GDP in Q1. It has not experienced that in at least 50 years. That's a 12% absolute drop.

THEORETICAL LEAST BAD SCENARIO:

If everyone in a country were to self-isolate for two weeks and be tested, health officials would know who has the virus and who does not. Those citizens with the virus could be treated and the others back to work.

Two weeks divided by 52 is a 4% drag to trend GDP. That's the theoretical/least bad scenario.

Reality doesn't work that way. Each country is adopting different measures. The impact will be at least that large in the United States and many other countries.



Monetary Policy

THE AGE OF ZERO INTEREST RATE POLICY

With last week's Fed cut, now almost 60% of the world's GDP is already at its effective lower bound of zero.

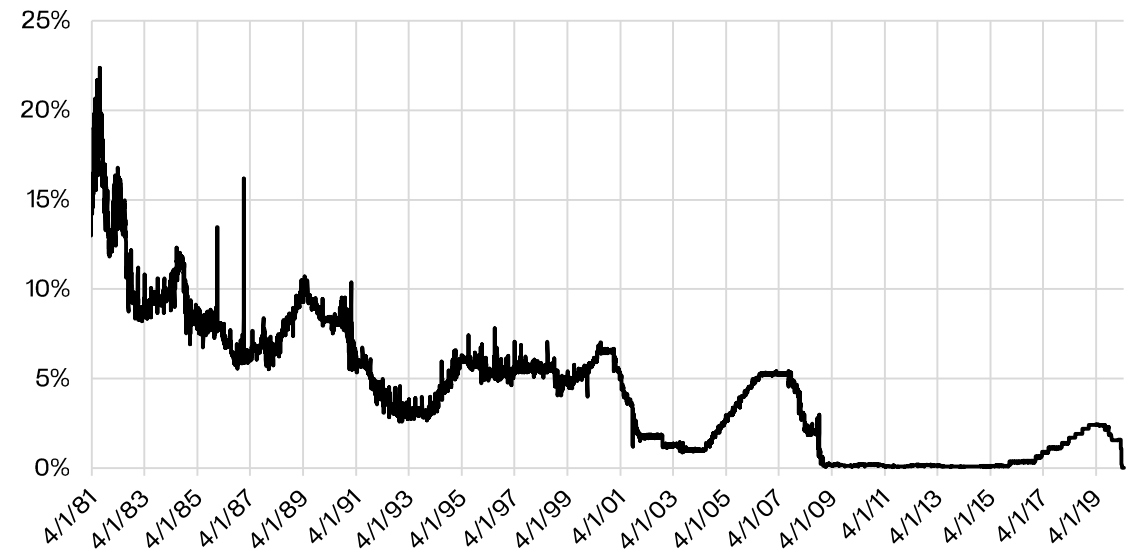
To put the previous monetary response in perspective, during the Global Financial Crisis in 2008-9, the U.S. cut rates 438 bps. The global cut was 297 bps.

This time, the U.S. only had 150bps of ammo left. Globally, rates are expected to be reduced by only 55 bps – less than a fifth the policy support of the previous crisis.

GLOBAL INTEREST RATES

Switzerland	-0.75%
U.S.	0.00%
Euro Area	0.00%
United Kingdom	0.10%
Australia	0.25%
Hong Kong	0.86%

Federal Funds Rate



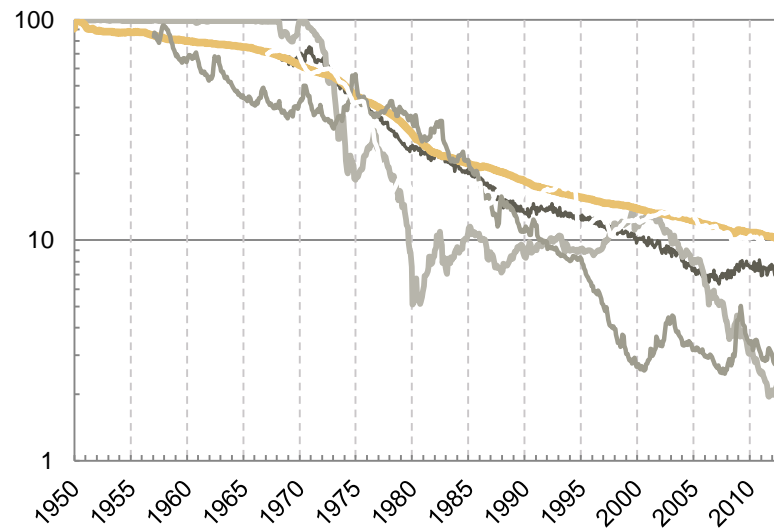


Fiat Currencies

ARE POOR STORES OF VALUE

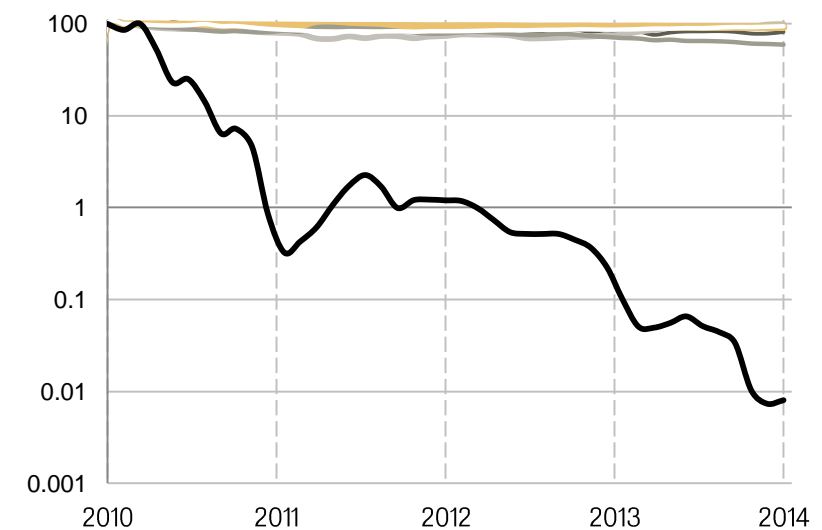
The U.S. dollar has held its value better than almost every other fiat currency, but has still lost over 90% of its purchasing power since 1950. Investors would have done better in gold, the stock market, jewelry, fine art, or real estate;

THE DOLLAR HAS LOST 90% OF ITS VALUE SINCE 1950



— Median Home Price — Gold
 — U.S. CPI — S&P 500
 — Cup of Coffee

THE DOLLAR HAS LOST 99.99% OF ITS VALUE SINCE 2010 RELATIVE TO BITCOIN



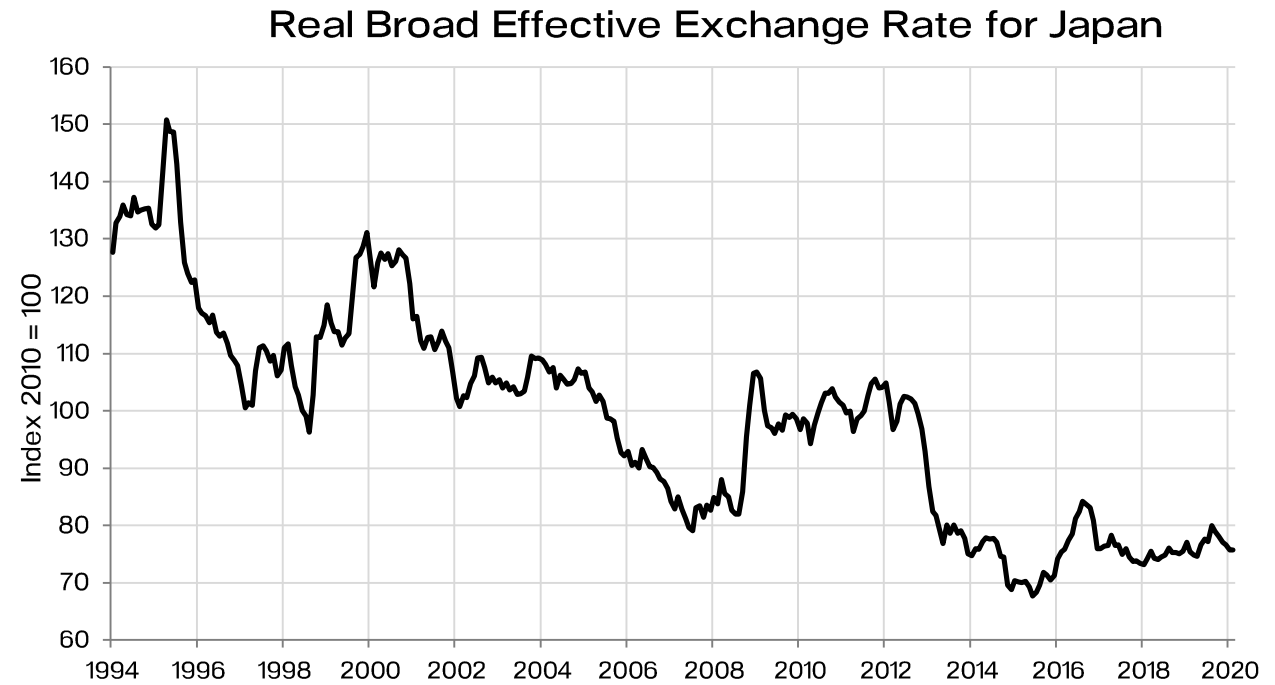
— Median Home Prices — Gold
 — US CPI — S&P 500
 — Cup of Coffee — Bitcoin



Buying Equities With Printed Money

Ex-Fed Chair Yellen “The Fed...is far more restricted than most other central banks...It would be a substantial change to give the Fed the ability to buy stock.”

The BoJapan invented QE, ZIRP, and buying equities with printed money. Not a pretty picture for their currency.



Source: <https://fred.stlouisfed.org/series/RBJPBI>



Impact On Crypto

BITCOIN AND CRYPTOCURRENCY

As governments increase the quantity of paper money, it takes more pieces of paper money to buy things that have fixed quantities, like stocks and real estate, above where they would settle absent an increase in the amount of money. They will likely do that.

The corollary is they'll also **inflate the price of other things, like gold, bitcoin, and other cryptocurrencies.**

Bitcoin was born in a financial crisis.

It will come of age in this one.



Institutional Adoption

The price of bitcoin may set a new record in the next twelve months. It's not going to happen overnight.

Institutional investors may take 2-3 months to triage their current portfolio issues. Another 3-6 months to research new opportunities like distressed debt, special situations, crypto, etc.

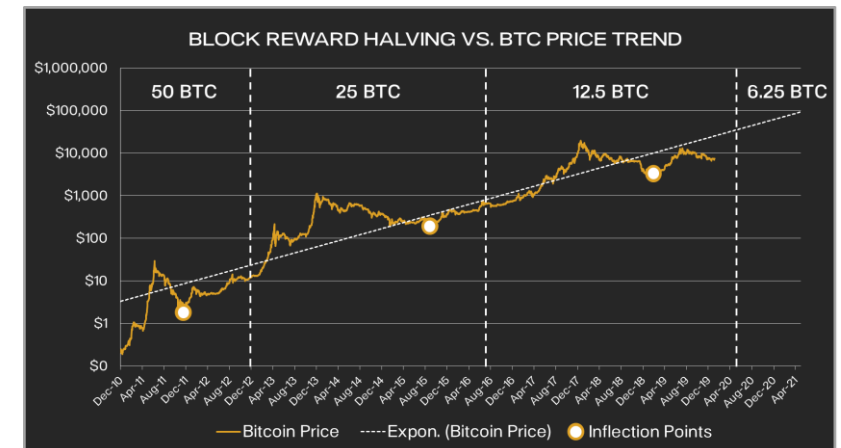
Then, as they begin making allocations, those markets will really begin to rise.

Two catalysts:

If crypto begins to decouple from traditional equities, this would be a great sign for institutions to gain crypto exposure amidst falling equities.

Halvening – if Bitcoin repeats it's halvening pattern, institutions could identify it as a potential top performing asset amidst this global economic setback.

Halvings	Inflection Points
2012	376 days prior
2016	320 days prior
2020	515 days prior
Average	403





2020 YTD

PERFORMANCE

Bitcoin is up year-to-date.

We now believe that the short-term high correlation with general markets is over and that crypto will trade independently.

2020 YEAR-TO-DATE PERFORMANCE

Bitcoin	+2%
Stocks (S&P 500)	-16%
Real Estate (DWRTF)	-28%
Oil (CL1)	-57%
Commodities (CRB)	-30%
Corporate Bonds (HYG)	-14%

Note: Performance based on 4/7/2020 pricing around 8:30am PDT



Specific Actions In Crypto

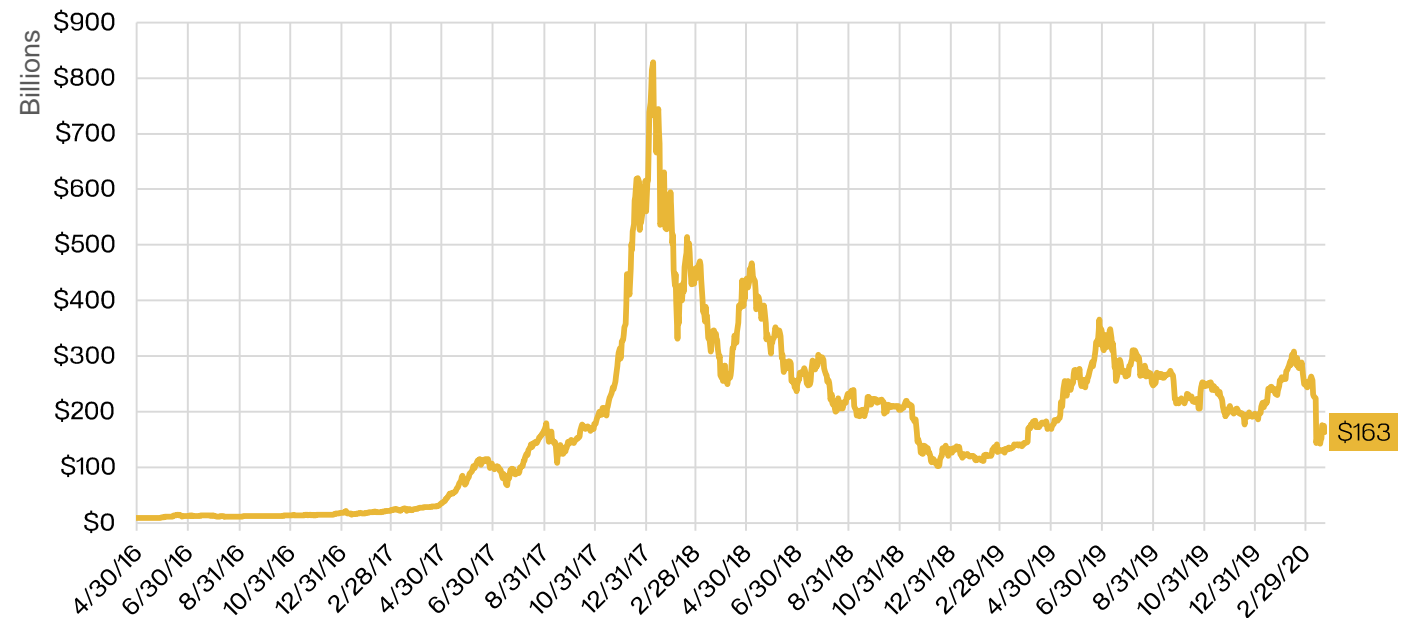


Risk-On or Risk-Off?

CRYPTO AS AN ASSET CLASS

A common misconception people have is that Bitcoin serves as a risk-off safe-haven asset in the short-term. It's actually a misconception people have about gold to some degree as well. During huge spikes in volatility and steep downturns, it isn't uncorrelated. People sell everything during these times.

Total Crypto Market Cap

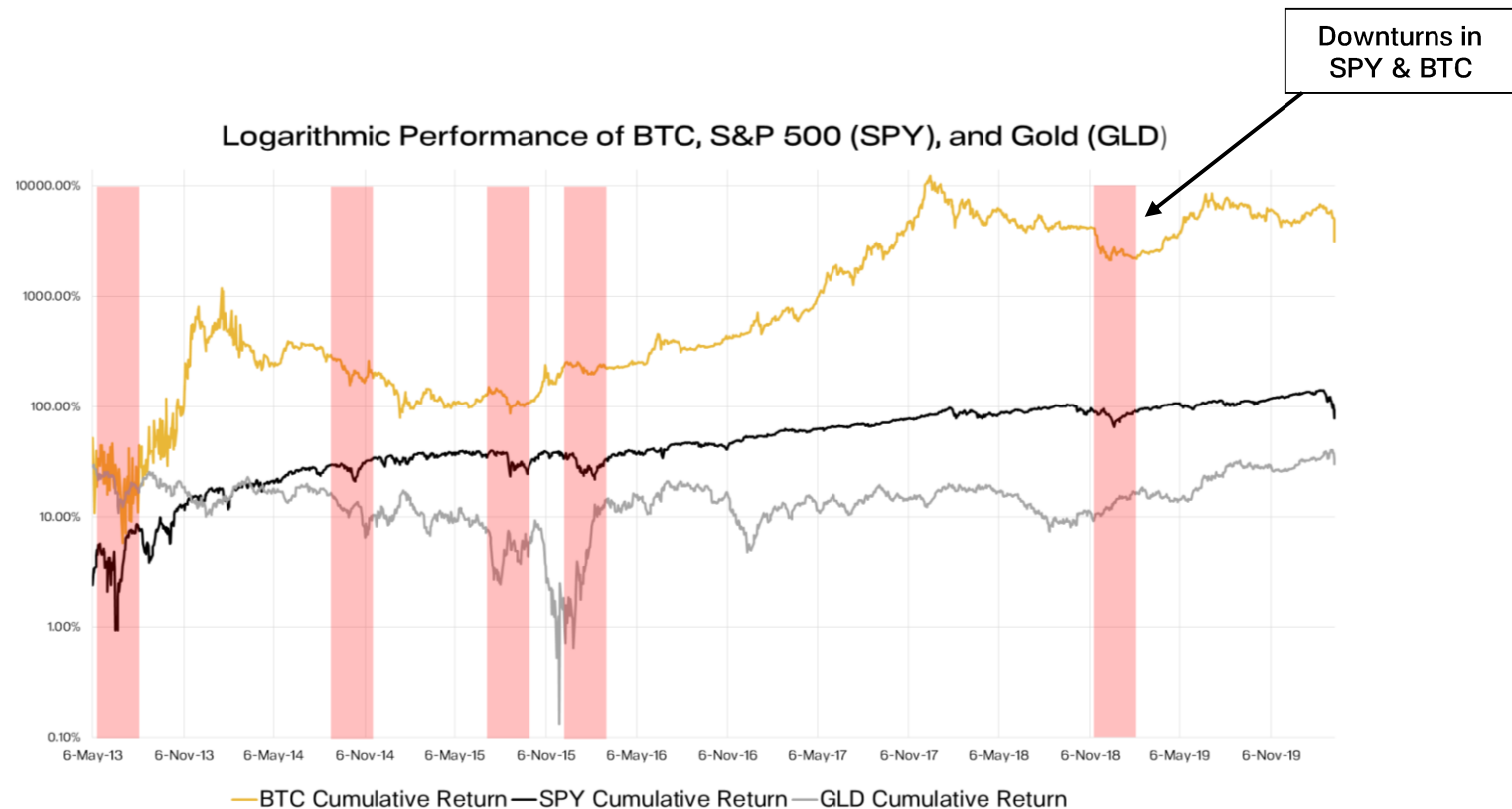




Correlations in Crises

In the five major S&P downdrafts since 2012, **Bitcoin's correlation with stocks spiked sharply positive for 32 days in the initial movement**, but tapered off to neutrality over an average of 71 days.

While assets such as gold tended to uniformly gain an average of 8.2% during these periods, bitcoin has historically experienced some of its greatest volatility during these times.

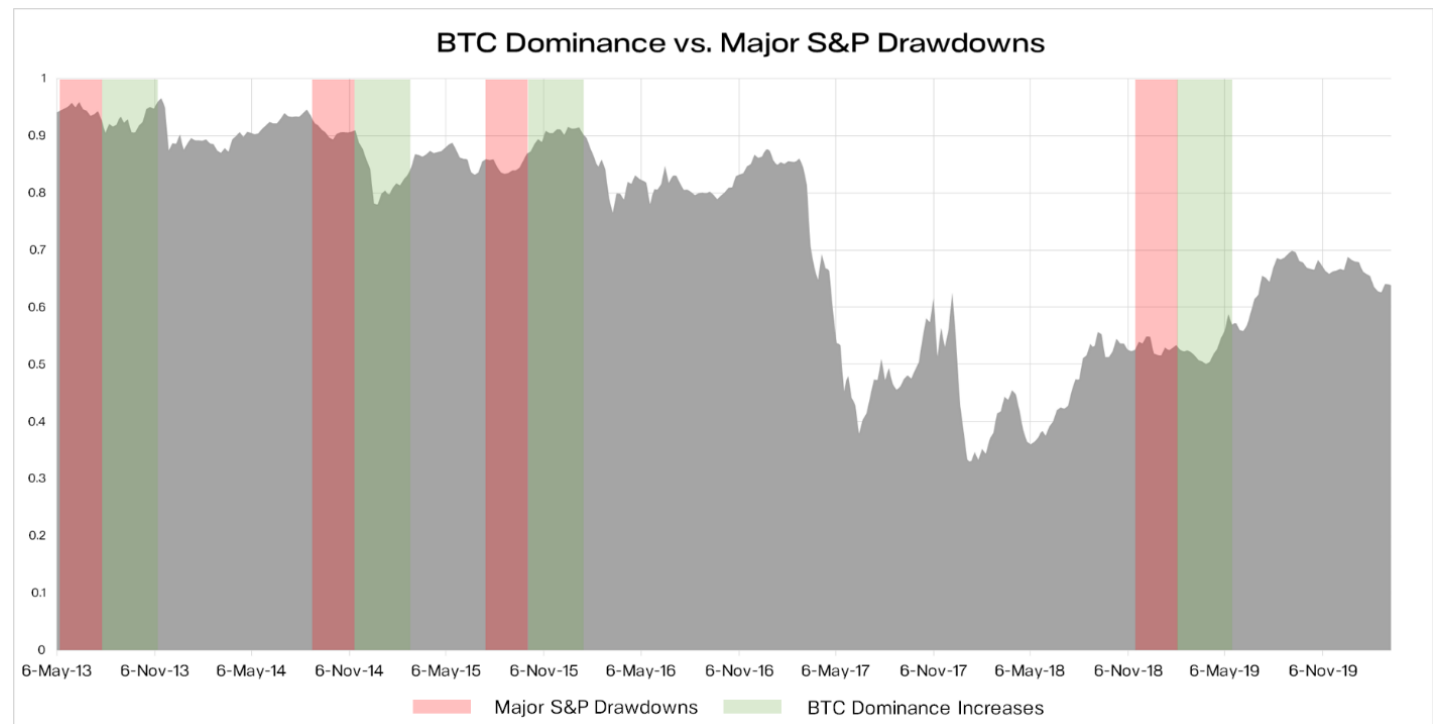




Bitcoin Dominance Pattern

IN RELATION TO S&P 500 DRAWDOWNS

Bitcoin's relative market-share (known as "bitcoin dominance") among all digital assets has increased in each of the five major S&P downdrafts since 2012. **The increase in dominance historically lasted an average of approximately 4 months and an average gain of 7.8%.** We believe that is likely to happen again. It has moved several percentage points already.



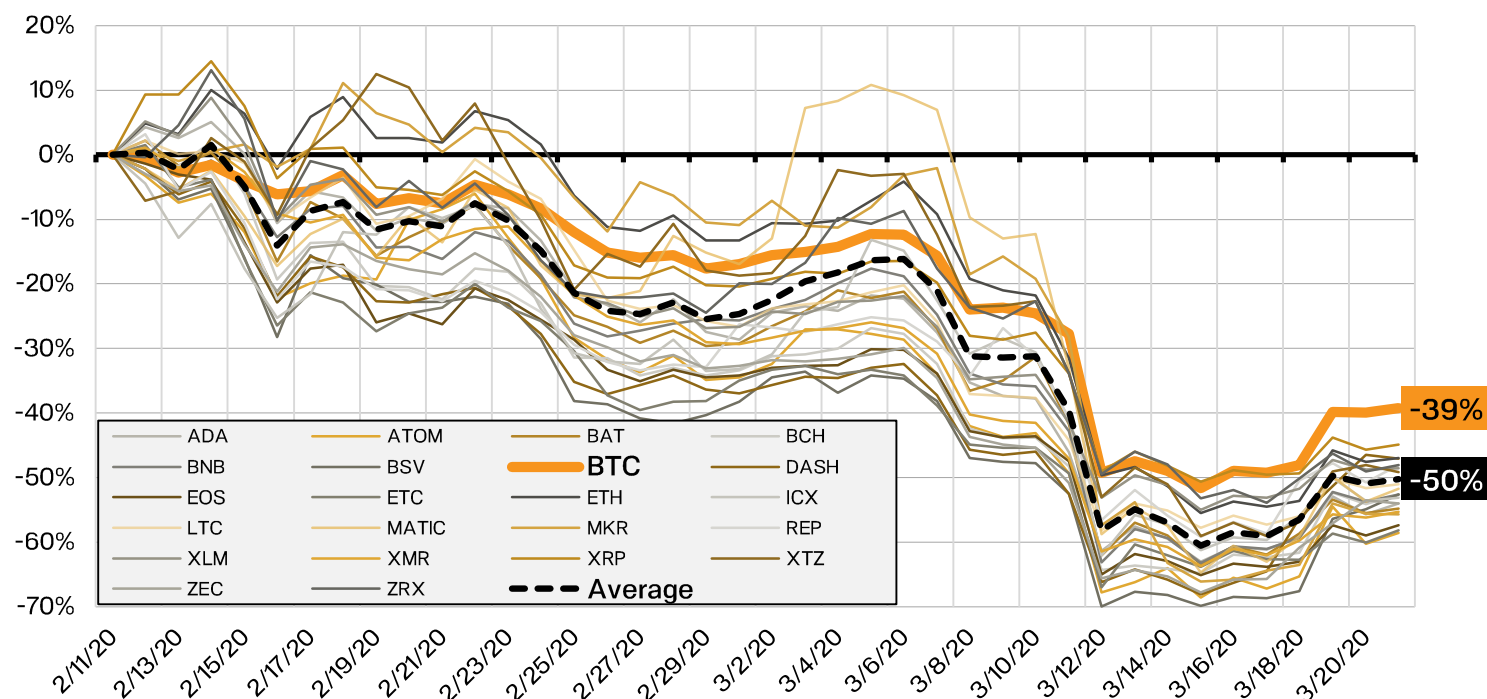


Crypto-Asset Movement

FLIGHT-TO-QUALITY

There's typically a flight-to-quality where people want to put money in the mega-caps, the safest asset, "the Treasuries" of the industry. When markets are stressed and people are trying to sell all crypto assets, bitcoin's much more liquid than everything else. We have increased our bitcoin exposure and taken down risk in other assets.

Crypto-Asset Movement



Note: not all cryptocurrencies are shown in the graph



Deviation From Trend

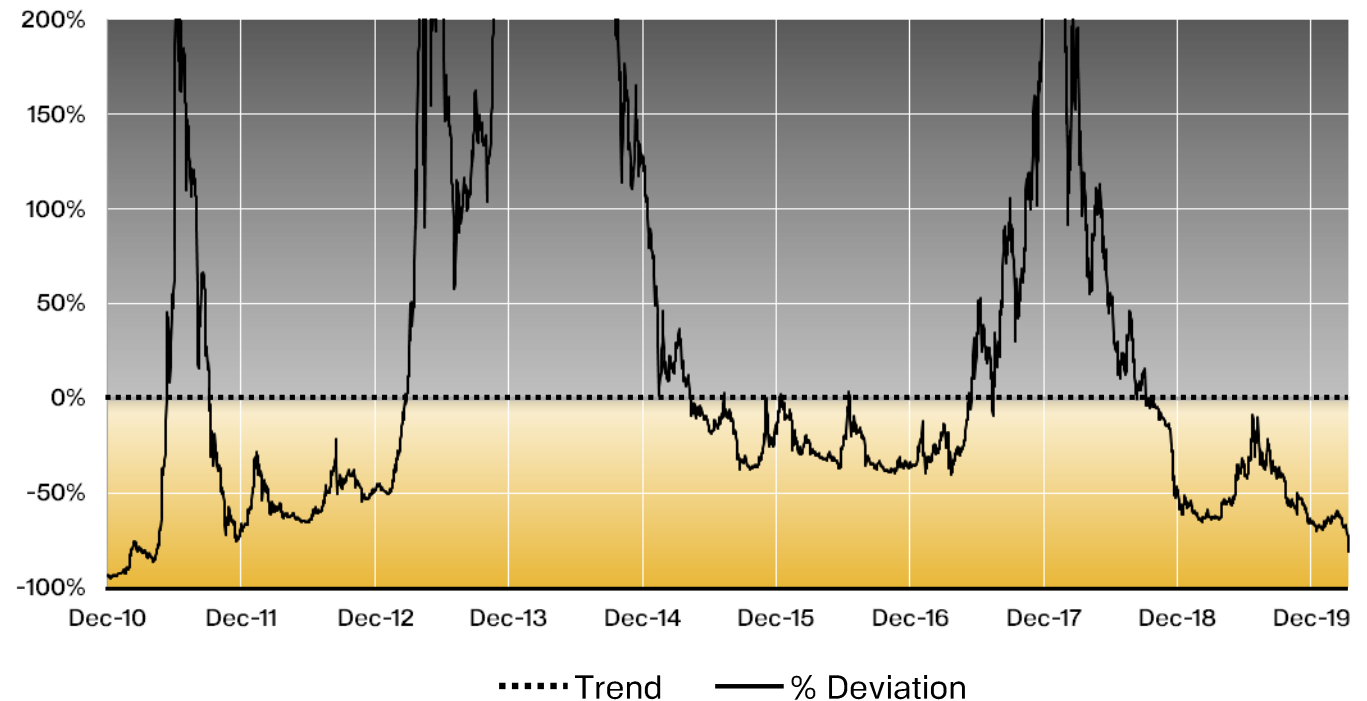
BITCOIN PRICE

The price of Bitcoin has been pushed down significantly below its nine-year logarithmic trend.

Bitcoin's deviation from its trend is the most it's been since April 2011, currently at the 3rd percentile.

Note: Pricing data taken from Dec 1, 2010 – March 12, 2020

Bitcoin Deviation from Nine-Year Trend





Catalysts for a Bottom

TIMING THE MARKET

We are continuing to monitor all aspects of this global phenomenon to best understand when we'll begin recovering both health-wise and economically.

When many of these things happen, it's time to consider getting more heavily back into the market.

Catalysts to monitor for a bottom:

Previously Published	Current Status
Max pain in 2-4 weeks when cases begin to peak.	Projected April 16 th
Successful drugs exist that lower CFR > 10x	Happened
People are so fearful that they shop online even for staples like groceries	Happening
> \$1T in stimulus plans and > \$250B in bailouts	Happened at 2x the size
When the S&P is below support at \$2000	Not happened
Bad Q1 numbers	Not yet
Bitcoin staying above \$5k despite continued declines in the SPY	Happened



Pantera Strategy



Pantera Bitcoin Fund

NO STRATEGIC ADJUSTMENTS

Pantera Bitcoin Fund is a passive tracker of Bitcoin, offering daily liquidity and a low fee structure.

There won't be any adjustments to the Fund's strategy.

Fund Features

- Daily subscriptions and redemptions
- Low fees: 0.00% performance, 0.75% management, 1.00% realization
- No lockups or early redemption fees
- Both U.S. and non-U.S. investors
- No premium to NAV



Digital Asset Fund

STRATEGIC ADJUSTMENTS

Digital Asset Fund has already undergone adjustments to its portfolio composition to mitigate the effects of further economic instability.

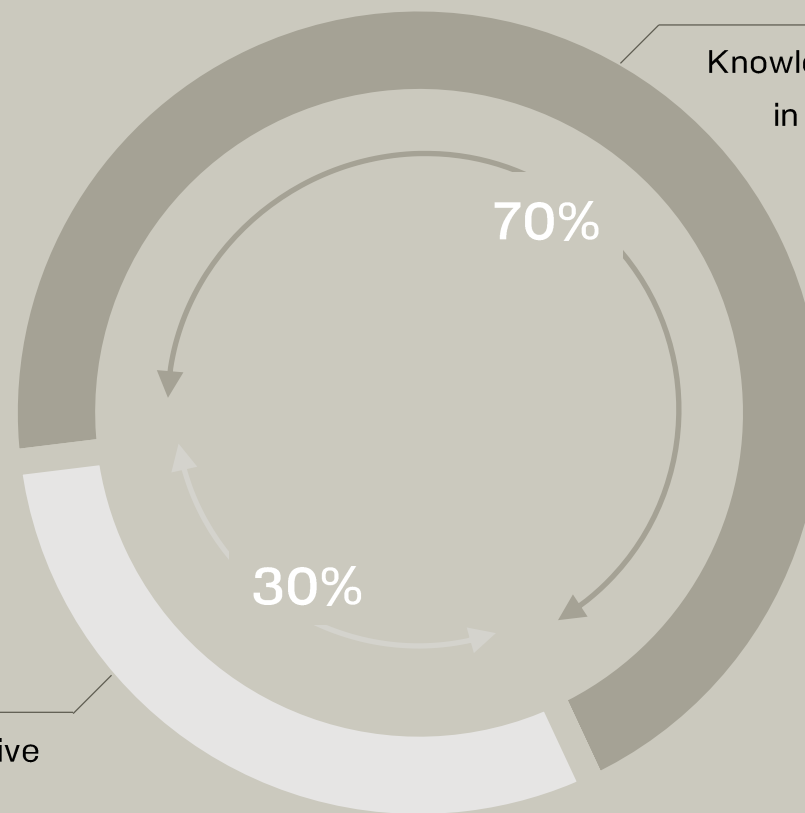
1. We have increased our quant strategies to 30%.
2. Discretionary has rebalanced further into BTC (approx. 33%), reducing exposure to other assets.

Quantitative

Machine learning, quantitative models seeking alpha

Discretionary

Knowledge-based investing in high-growth potential digital assets





Venture & ICO Funds

STRATEGIC ADJUSTMENTS

Venture Fund III and ICO Funds will continue to source deals within the given environment.

The overall strategies do not change much but investment decisions will be made through the lens of a weakening global economic environment.

Adjustments

- Focus on use cases that can thrive during this time, e.g. speculation and digital payments.
- Help portfolio companies strategize, how to lengthen runway, and create scenario analyses for better financial projections.
- Make quick decisions for companies needing bridge rounds. Brainstorm alternative forms of fundraising.
- Evaluate pending transactions for appropriate valuations given current market conditions.
- Be patient. Investor appetite will cool and sophisticated, experienced investors will be able to deploy into the right companies at this time with potentially favorable/discounted valuations.



CARES Act

FOR STARTUPS

The CARES Act was signed into law on Mar 27, 2020 and provides up to \$350 billion in SBA-administered loans and important business tax provisions to provide relief to small businesses as part of the Paycheck Protection Program (PPP).

It is currently unclear if venture-backed startups are eligible for the PPP lending program, due to the affiliate rule. Once we get clarity, we will inform all portfolio companies immediately.

BUSINESS TAX PROVISIONS

Employee Retention Credit	Temporary, refundable payroll tax credit for 50% of wages & healthcare benefits, up to \$5k per employee
Delayed Payment of Payroll Taxes	Allows delay of this year's payments of employer-side Social Security taxes to end of 2021 and 2022

PAYCHECK PROTECTION PROGRAM

SBA-administered Loans with Forgiveness	Loans for the lesser of \$10mm or 2.5x average monthly payroll expense for 2019 , up to \$100k annualized per employee
	Loan forgiveness if used for payroll, healthcare benefits, rent, and utilities
	Must be < 500 employees and subject to affiliation rule



THE BEST TIME TO INVEST IN VENTURE IS

After a Crisis

History has shown that one of the best times to invest in venture is after a crisis.

Vintages Before The Crisis (1999-2008): 6.28%

Vintages After The Crisis (2009-2015): 18.21%

Vintages Before The Crisis (1999-2008)

VINTAGES	RETURNS
1999	-0.89%
2000	0.73%
2001	2.72%
2002	-0.49%
2003	9.18%
2004	8.33%
2005	7.14%
2006	8.80%
2007	15.41%
2008	11.86%
Average:	6.28%

Vintages After The Crisis (2009-2015)

2009	15.37%
2010	27.75%
2011	19.67%
2012	17.69%
2013	19.31%
2014	14.36%
2015	13.30%
Average:	18.21%

PANTERA

pan terra (Latin), 'spanning the earth'
pantera (Italian and Spanish), 'panther'
pan era, 'spanning eras'



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